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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,525	01/24/2002	Robert Marc Clement	7500.376US01	2322
23552	7590	06/28/2004	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			PIAZZA CORCORAN, GLADYS JOSEFINA	
			ART UNIT	PAPER NUMBER
			1733	

DATE MAILED: 06/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/057,525	CLEMENT ET AL.	
	Examiner	Art Unit	
	Gladys J Piazza Corcoran	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
 4a) Of the above claim(s) 16-23 is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-15 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>4/3/02</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. It is noted that Applicant submitted a request for a refund on May 5, 2004 because Applicant filed duplicate copies of the Response to the Election and Restriction requirement on April 16, 2004 and April 19, 2004 which both included a petition for the extension of time. Since there was only one fee charged on April 16, 2004 and no subsequent charges, a refund is not necessary.

Election/Restrictions

2. Applicant's election with traverse of Group I, Species I and Species E in the reply filed on April 16, 2004 is acknowledged. The traversal is on the ground(s) that the Examiner has not shown how examining all the claims would be unduly burdensome and that the Applicant does not wish to be bound by the Examiner's logic imposing the restriction requirement and request for election of species. This is not found persuasive because the claims were properly restricted as set forth in the previous Office Action filed November 17, 2003. The process as claimed can be practiced by another materially different apparatus such as one without a body portion on the device, or a delivery channel, or an outlet nozzle, or operator actuatable heating. Additionally, the apparatus as claimed can be used to practice another and materially different process such as dispensing non adhesive polymeric materials, dispensing onto articles other than the periphery of panels, and without requiring materials to cure at a temperature below the heating temperature. The separate groups have acquired a separate status in the art as shown by their different classification. Therefore the restriction was proper

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and the burden was correctly established. As to the Species requirement, the requirements have currently been withdrawn.

The requirement is still deemed proper and is therefore made FINAL.

3. Claims 16-23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Group II, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on April 16, 2004.

Information Disclosure Statement

4. The information disclosure statement filed April 3, 2002 has been corrected to indicate that only the Abstracts of GB 2311479 and JP 6073955 were submitted. It is further noted that Applicant submitted the reference WO 96/17737 with the information disclosure statement filed April 3, 2002 (apparently in lieu of GB 2311479). Therefore the reference is noted on the Notice of References Cited (PTO 892), however a copy is not being provided with this Office Action.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 5, 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 5 is unclear by reciting "at a uniform temperature , 5°C". It is unclear what Applicant intends to recite.

8. Claim 5 is also unclear by reciting in independent claim 1 that the adhesive is dispensed about the periphery of the panel and then in claim 5 that the adhesive is maintained at a uniform temperature during dispensing about a panel or the frame to which the panel is to be bonded. Since there is no step of applying adhesive about the frame, it is unclear what Applicant intends.

9. Claim 7 recites the limitation "the in applicator device heating stage" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Objections

10. Claim 5 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. As discussed above, claim 5 is unclear as to what the recitation "at a uniform temperature , 5°C" requires. Since independent claim 1 already requires that the temperature of the adhesive bonding material dispensed is maintained substantially uniform and it is unclear what the recitation "at a uniform temperature , 5°C" requires, consequently claim 5 is currently considered to be improper for failing to further limit the subject matter of the independent claim 1.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 1-7, 14, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tschan et al. (US Patent No. 4,778,845) in view of the Admitted Prior Art, Kunert (US Patent No. 4,910,071), and/or Swanson et al. (US Patent No. 6,054,001).

Tschan discloses a method of securing a panel with an adhesive bonding material (column 4, lines 21-23), by subjecting the bonding material to a predetermined temperature regime having a period of heating the bonding material at a predetermined level prior to dispensing from the dispensing outlet of the device (column 4, lines 12-20) and a subsequent period of curing in-situ in contact with the glazing panel at a temperature significantly below the predetermined heating temperature level (column 3, lines 5-15). As to the limitation that the temperature of the adhesive bonding material dispensed via the dispensing outlet is maintained substantially uniform as adhesive is dispensed about the periphery of the panel, Tschan discloses the adhesive material is dispensed in a hot state and one of ordinary skill in the art the time of the invention

would readily recognize that the adhesive is applied at a substantially uniform temperature. Additionally, it is considered conventional to apply the adhesive material around a periphery of the panel when mounting and or bonding windows to automobile vehicles.

As to the limitation of using a hand-held operator manipulative dispensing device to dispense the adhesive bonding material via a dispensing outlet of the device, it is considered conventional to apply the adhesive bonding material along peripheries of glazing panels for mounting onto automobiles by using hand-held operator manipulative devices. For example, it appears (although not clearly) as though the Admitted Prior Art discloses it is known at least in repair shops (Specification page 1-3). Kunert also discloses it is known in the art to provide polyurethane adhesive masses about the periphery of window panels with an extrusion nozzle by hand (column 3, lines 19-24). Swanson also discloses that it is known in the art to apply moisture cured urethane adhesives around the periphery of window panels by hand (column 1, lines 27-30). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the adhesive material in Tschan with a hand-held operator manipulative device as is considered well known in the art in order to apply the adhesive material around the periphery of the glazing panels in the automotive art and as further exemplified by the Admitted Prior Art, Kunert and/or Swanson.

As to claim 2, the adhesive bonding material is a moisture cure adhesive bonding material (column 3, lines 13-16; column 4, lines 10-11). As to claims 3 and 4, the predetermined level to which the adhesive bonding material is heated prior to

dispensing is at or above 50°C and in the range of 70°C ± 20°C (column 3, lines 9-10, and 61-63). As to claim 5, as discussed above, it would have been well within the skill of one of ordinary skill in the art at the time of the invention to apply the adhesive a uniform temperature during the dispensing of the adhesive about the panel (or the frame; it is noted it is well known and conventional in the art to apply the adhesive to either or both the frame or the panel when bonding/mounting window panels to automobile frames). As to claim 6, while Tschan does not specifically disclose at what temperature the adhesive is dispensed, Tschan does disclose that the adhesive is heated to a temperature within the range of 70°C ± 20°C (column 3, lines 9-10) and that the adhesive is applied hot (column 4, lines 12-20). It would have been obvious to one of ordinary skill in the art at the time of the invention to dispense the adhesive in Tschan at a temperature within the range of 70°C ± 20°C since that is the same range of temperatures the adhesive is heated to and the adhesive is applied directly after heating, therefore one of ordinary skill in the art would readily appreciate that the dispensing temperature would be substantially similar to the temperature at which it was heated to prior to dispensing. As to claim 7, Tschan discloses that a minor degree of curing occurs during the heating stage in the applicator (the heatable tube is considered part of the applicator; column 3, lines 9-11; column 4, lines 17-19). As to claim 14, after the heating and dispensing of the adhesive in Tschan, the adhesive is permitted to fully cure in situ with moisture (column 4, lines 10-11). While Tschan does not specifically disclose that the moisture cure is in ambient conditions, it is considered well known in the art to moisture-cure sealants on panels in ambient conditions. As to claim 15,

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Tschan discloses carrying out the heating stage prior to dispensing, therefore the heating stage is considered to be carried out prior to positioning the panel and adhesive bonding material for securing (it is noted it is also considered conventional to apply the adhesive to the panel while lying flat and then move the panel onto the automobile frame for mounting).

14. Claims 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tschan et al. in view of the Admitted Prior Art, Kunert, and/or Swanson et al. as applied to claim 1 above, and further in view of Landrock (Adhesives Technology Handbook).

Tschan discloses that the adhesive is heated by passing through a heatable hose, however does not specifically disclose the type or method of heating the adhesive. It is considered well known in the adhesive arts to heat adhesives by a variety of methods including bulk techniques that utilize electromagnetic radiation, dielectric radiation, microwave radiation, radio frequency radiation, or ultrasonic radiation. Landrock discloses examples of methods for providing heat to adhesives for curing including, radiation curing, dielectric (radio frequency heating), or ultrasonic activation (p. 214-219). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the method of securing a panel as shown by Tschan in view of the Admitted Prior Art, Kunert, and/or Swanson by heating the adhesive with a well known and conventional method such as bulk techniques that utilize electromagnetic radiation, dielectric radiation, microwave radiation, radio frequency radiation, or ultrasonic radiation as further exemplified by Landrock.

15. Claims 8, 10, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tschan et al. in view of the Admitted Prior Art, Kunert, and/or Swanson et al. as applied to claim 1 above, and further in view of Hill et al. (US Patent No. 5,948,194) and/or Duck et al. (US Patent No. 5,064,494).

Tschan discloses that the adhesive is heated by passing through a heatable hose, however does not specifically disclose the type or method of heating the adhesive. It is considered well known in the adhesive arts to heat adhesives by a variety of methods including bulk techniques that utilize electromagnetic radiation such as microwave radiation. For example, Hill discloses a method of pre-heating an adhesive prior to application to a panel where the adhesive is pre-heated with a microwave pre-heater (column 4, lines 48-55). Duck also discloses an example of heating an adhesive prior to applying to a panel where the adhesive is heated as it moves through a tube with microwave energy (column 7, lines 11-26). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the method of securing a panel as shown by Tschan in view of the Admitted Prior Art, Kunert, and/or Swanson by heating the adhesive with a well known and conventional method such as bulk techniques that utilize electromagnetic radiation such as microwave radiation as further exemplified by Hill and/or Duck.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gladys J Piazza Corcoran whose telephone number is

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(571) 272-1214. The examiner can normally be reached on M-F 8am-5:30pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Gladys J. Corcoran
Examiner
Art Unit 1733

GJPC